

This document was submitted to EPA by a registrant in connection with EPA's evaluation of this chemical, and it is presented here exactly as submitted.



United States
Environmental Protection Agency
Washington, DC 20460

☐ Registration
☒ Amendment
☐ Other

OPP Identifier Number
260766
252812

Application for Pesticide - Section I

1. Company/Product Number 3125-172	2. EPA Product Manager George LaRocca	3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product Name Di-Syston 15% Granular Systemic Insecticide	PM# 03	
5. Name and Address of Applicant (Include ZIP Code) Bayer Corporation 8400 Hawthorn Road, P.O. Box 4913 Kansas City, MO 64120-0013 <input type="checkbox"/> Check. If this is a new address		6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____

Section - II

<input checked="" type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For Section I and Section II.)

See Attached

Section - III

1. Material This Product Will Be Packaged In:

Child-Resistant Packaging <input type="checkbox"/> Yes* <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No If "Yes" Unit Packaging wgt. _____ No. Per Container _____	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No If "Yes" Package wgt. _____ No. Per Container _____	2. Type of Container <input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
* Certification must be submitted			
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container	4. Size(s) Retail Container	5. Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper Glued <input type="checkbox"/> Stenciled <input type="checkbox"/> Other _____			

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)

Name Premjit P. Halarnkar	Title Regulatory Affairs Specialist	Telephone No. (Include Area Code) 816-242-2331
2. Signature <i>John S. Thornton</i>		3. Title Director, Product Registrations and Regulatory Affairs
4. Typed Name John S. Thornton		5. Date March 10, 1999
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)

Di-Syston 8 Emulsifiable Systemic Insecticide
EPA Reg. No. 3125-307

Di-Syston 15% Granular Systemic Insecticide
EPA Reg. No. 3125-172

Section II - Amendment Information

In order to bring our labeling in line with current use practices, Bayer has decided to make the following changes in the two disulfoton labels listed above.

Cotton: Foliar application eliminated. Three soil applications (3 lbs ai/acre total) reduced to one soil application of 1 lb ai/acre.

Potatoes: Two soil applications (8 lbs ai/acre total) reduced to one soil application of 3 lbs ai/acre. Foliar use (3 lbs ai/acre) eliminated in the West. Foliar use is now 1 lb ai/acre (East of the Rocky Mts. only).

Wheat: Two foliar applications (1.5 lbs ai/acre total) reduced to one foliar application (0.75 lbs ai/acre total).

Peanuts: Soil application reduced from 2 lbs ai/acre to 1 lb ai/acre.

Beans: Reduce 15G rate from 2 lbs ai/acre to 1 lb ai/acre.

Tobacco: Total amount allowed set at 4 lbs ai/acre.

Sorghum: Two soil applications (2 lbs ai/acre total) reduced to one soil applications (1 lb ai/acre). Three foliar applications (1.5 lbs ai/acre total) reduced to two foliar applications (1.0 lbs ai/acre total).

Brussels Sprouts, Cauliflower: Two soil applications (2 lbs ai/acre total) reduced to one soil application (1 lb ai/acre total).

Tomatoes, Oats, Corn, Pecans: All uses canceled.

RESTRICTED USE PESTICIDE

Due to acute human oral, dermal, and inhalation toxicity

For retail sale to and use only by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

Di-Syston® 15%

Granular Systemic Insecticide

For effective systemic crop protection.

ACTIVE INGREDIENT:

O,O-Diethyl S-[2-(ethylthio)ethyl]phosphorodithioate . 15%

INERT INGREDIENTS: 85%
100%

EPA Reg. No. 3125-172

Net Weight: ____ Pounds

STOP - Read the label before use.

Keep out of reach of children.

POISON

DANGER



PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.

(If you do not understand the label, find someone to explain it to you in detail.)

STATEMENTS OF PRACTICAL TREATMENT

Organophosphate

TREATMENT: In case of poisoning, call a physician immediately. Have patient lie down and keep quiet. **If swallowed:** Vomiting should be induced. Administer water freely and induce vomiting by giving one dose (1/2 oz or 15 mL) of syrup of ipecac. If vomiting does not occur within 10 to 20 minutes, administer second dose. If syrup of ipecac is not available, induce vomiting by sticking finger down throat. Repeat until vomit fluid is clear. Never give anything by mouth to an unconscious person. Professional medical assistance should be secured immediately. **If on skin:** Remove contaminated clothing and wash skin immediately with soap and warm water. Get medical attention immediately. **If eyes are contaminated:** Wash with plenty of flowing water. Get medical attention immediately.

To Physician: ANTIDOTE - Administer atropine sulfate in large therapeutic doses. Repeat as necessary to the point of tolerance. 2-PAM is also antidotal and may be administered but only in conjunction with atropine.

Compound inhibits cholinesterase resulting in stimulation of the central nervous system, the parasympathetic nervous system, and the somatic motor nerves. Do not give morphine. Watch for pulmonary edema, which may develop in serious cases of poisoning even after 12 hours. At first sign of pulmonary edema, the patient should be placed in an oxygen tent and treated symptomatically.

SYMPTOMS OF POISONING: A sense of "tightness" in the chest. Sweating. Contracted pupils. Stomach pains. Vomiting and diarrhea.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER: Poisonous if swallowed, inhaled, or absorbed through the skin. Rapidly absorbed through the skin. Do not get in eyes or on skin. Do not breathe dust. Do not contaminate feed or food. Keep out of reach of children.

Personal Protective Equipment

Applicators and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants
- Water-proof gloves
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing or loading
- For exposures in enclosed areas, a respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOS approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G)
- For exposures outdoors, dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C)

Follow manufacturer's instructions for cleaning/ maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering controls statements: When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

DI-SYSTON 15% Granular systemic insecticide enters the plant through the root system. The insecticide when placed near the roots, is picked up and moves in the sap stream to all parts of the plant where it kills insects as they feed on the plant.

This formulation of DI-SYSTON 15% Granular is highly versatile and may be applied by various methods. It can be drilled in the furrow with seed, broadcast, or banded on each side of the seed furrow. Foliage broadcast application may be applied by ground or air equipment. Time and method of application and limits for use are discussed in detail for each specific crop under "Remarks" below.

As a preplant treatment for ornamental flowers, shrubs, and trees, apply granules evenly to seed bed and mix into soil; seeds or transplants are then placed in the normal manner.

Established plants may be treated by distributing granules uniformly under foliage canopy. Work the granules uniformly into top soil and water thoroughly. The active ingredient will move into the root zone and be taken up by the root system.

RECOMMENDED APPLICATIONS

IMPORTANT: When used on cotton, beans, or lettuce at the maximum recommended rates under adverse conditions such as extremely cool or wet or extremely dry weather, DI-SYSTON systemic insecticide may cause some delay in emergence, stunting of seedlings, or reduction of stand. Such damage may be more pronounced in light, sandy soils. Plant injury may also occur or may be enhanced when certain pre-emergent herbicides are used in conjunction with DI-SYSTON.

RECOMMENDED APPLICATIONS																			
CROP	INSECT	DOSAGE DI-SYSTON 15% G	REMARKS																
FIELD CROPS Barley	Aphids* Grasshoppers Hessian fly Mites (Except Wheat curl mite) Thrips	6.7 lb per acre	Apply by drilling or broadcast at planting time, or as a broadcast after emergence. Do not apply more than twice per season nor within 60 days of harvest for grain. Allow a minimum of 21 days between applications. Do not graze or cut for forage within 30 days of treatment. For control of Hessian fly, apply at planting. In addition, foliar application of DI-SYSTON 8 to control later generations in southern growing areas may be beneficial. ROW SPACING RATE CHART FOR DI-SYSTON 15% G <table><tr><td>Row Spacing**</td><td>Lb 15% G / Acre</td><td>Row Spacing**</td><td>Lb 15% G / Acre</td></tr><tr><td>6, 7, or 8</td><td>6.7</td><td>14</td><td>3.9</td></tr><tr><td>10</td><td>5.4</td><td>16</td><td>3.4</td></tr><tr><td>12</td><td>4.5</td><td>18</td><td>3.0</td></tr></table>	Row Spacing**	Lb 15% G / Acre	Row Spacing**	Lb 15% G / Acre	6, 7, or 8	6.7	14	3.9	10	5.4	16	3.4	12	4.5	18	3.0
Row Spacing**	Lb 15% G / Acre	Row Spacing**	Lb 15% G / Acre																
6, 7, or 8	6.7	14	3.9																
10	5.4	16	3.4																
12	4.5	18	3.0																
Cotton	Aphids* Mites Thrips (Except Western flower thrips)	5 to 8 oz/1000 ft of row** up to a maximum of 6.7 lb/A OR 4 to 6.7 lb/A	Read "IMPORTANT" statement under "RECOMMENDED APPLICATIONS" for additional information before use on this crop. RATE CHART FOR APPLICATION <table><tr><td><u>Heavy Soils</u></td><td><u>Medium Soils</u></td><td><u>Light Soils</u></td></tr><tr><td>8 oz 15% G/ 1000 ft of row OR 6.7 lb 15% G/acre</td><td>6.6 oz 15% G/ 1000 ft of row OR 5.3 lb 15% G/acre</td><td>5 oz 15% G/ 1000 ft of row OR 4 lb 15% G/acre</td></tr></table> DO NOT FEED TREATED COTTON FORAGE. At Planting/Replanting: Place the granules in the seed furrow or in a soil incorporated band on each side of the furrow. This application may be used in conjunction with a fungicide application which is registered and recommended for disease control on this crop. This at plant soil application of DI-SYSTON may be used in conjunction with a preemergent surface applied or preplant incorporated treatment of Command herbicide. Refer to the herbicide product label for appropriate preplant or preemergent herbicide application directions and use rates. Do not reduce the application rate of DI-SYSTON insecticide when Command herbicide is applied as a banded treatment. Post Plant: (Irrigated Cotton Only) One soil incorporated side-dress application may be made. Regardless of the method of application, do not apply more than once per season. Allow at least 28 days between last application and harvest.	<u>Heavy Soils</u>	<u>Medium Soils</u>	<u>Light Soils</u>	8 oz 15% G/ 1000 ft of row OR 6.7 lb 15% G/acre	6.6 oz 15% G/ 1000 ft of row OR 5.3 lb 15% G/acre	5 oz 15% G/ 1000 ft of row OR 4 lb 15% G/acre										
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Peanuts	Aphids Leafhoppers Mites Thrips (Except Western flower thrips)	8 oz/1000 ft of row up to a maximum of 6.7 lb/A	Read "IMPORTANT" statement under "RECOMMENDED APPLICATIONS" for additional information before use on this crop. Apply specified dosage per acre in-furrow or as a soil incorporated band on each side of the seed at planting or as a soil incorporated side-dressing after plants are established. In conjunction with this soil application of DI-SYSTON, Basagran herbicide may be used at cracking or early postemergence at rates up to 1 pint/acre. Do not make a second application of Basagran until 21 days after peanut emergence. Do not apply more than 1.0 pint/acre of Basagran in single or multiple applications until 21 days after peanuts have emerged.																

* Due to greenbug resistance in certain areas, Di-Syston used alone may not provide satisfactory control. Consult your local cooperative extension service, agricultural advisor or Bayer representative for details.

**On row crops where row spacing is extremely narrow, do not place treated zones (band or furrow) closer together than 6 inches.

RECOMMENDED APPLICATIONS			
CROP	INSECT	DOSAGE DI-SYSTON 15% G	REMARKS
FRUIT Coffee (Puerto Rico only)	Leaf miner	2 to 4 grams/ft of tree height	Distribute granules uniformly under the tree canopy. Do not apply more than twice per year. Make no more than one pre-harvest and one post-harvest application. Do not make the pre-harvest application within 90 days of harvest. Any application equipment which is placed on the applicator's body or is carried by an applicator must meet the following requirements: The pesticide container and the entire path of pesticide through the equipment must be constructed of solid material impervious to dust. All joints must be tight-fitting to prevent escape of granules or dust from any point other than the designed discharge point(s). The pesticide container must be fitted with a tight-fitting lid which prevents escape of granules or dust during operation in any position. The equipment must be maintained in leak free condition. The equipment must be removed from the applicator's body for filling. The equipment exterior must be thoroughly cleaned of pesticide granules and dust before being placed on the applicator's body.
NON-BEARING FRUIT Fruit Trees (apples, apricots, cherries, crabapples, peaches, pears, plums, and prunes)	Aphids Lace bug Leafhoppers Mites Thrips Whiteflies	0.16 to 1.56 lb/tree OR 2.5 oz per inch of trunk diameter	Spread granules uniformly from trunk to drip line on all sides. Work into soil and water thoroughly. The higher dosage is recommended for heavy organic or muck soils. For transplanting, equivalent quantities should be applied into planting hole. Do not apply to trees that will bear fruit during current crop year.
Strawberries (Propagating Plants only)	Aphids Mites (except Cyclamen mite)	17 to 34.4 oz per 1000 feet of row (42-inch row spacing)** OR 13.3 to 26.7 lb/A	Apply by side-dressing on each side of the row or by broadcasting over the row as needed. Do not use fruit from treated plants for food purposes.
Raspberries (Nursery stock only) (Northeast States Only)	Aphids	53.3 lb/A	BAND APPLICATION: Apply specified dosage in a 24-inch band over the row to new or established plantings. Work granules 2 to 3 inches into the soil using a cultivator or other suitable equipment. A second application of granules may be applied to the soil later in the season. Consult your State Agricultural Experiment Station or Extension Service for proper timing of applications.
VEGETABLES Beans	Aphids Leafhoppers Mexican bean beetle (larvae) Mites Thrips	6 oz per 1000 feet of row up to 6.7 lb/A	Read "IMPORTANT" statement under "RECOMMENDED APPLICATIONS" for additional information before use on this crop. For snap or green Lima beans, place the granules in a soil incorporated band on each side of the seed furrow at planting time only. For dry beans, apply as above at planting time or as a soil incorporated side-dressing on each side of the row. Allow at least 60 days between application and harvest. Do not apply directly on the seed. Only one application is allowed per season. Do not feed vines or hay.
* Due to greenbug resistance in certain areas, Di-Syston used alone may not provide satisfactory control. Consult your local cooperative extension service, agricultural advisor or Bayer representative for details. ** On row crops where row spacing is extremely narrow, do not place treated zones (band or furrow) closer together than 6 inches.			

RECOMMENDED APPLICATIONS			
CROP	INSECT	DOSAGE DI-SYSTON 15% G [*]	REMARKS
ORNAMENTALS Flowers and Groundcover (Excluding bulbs and turf)	Aphids Lace bug Leafhoppers Mites Thrips Whiteflies	3.5 to 7.25 oz per 100 ft of row	ROW TREATMENT As a row treatment apply in a band on each side of the seed furrow, or as a band over the row. Incorporate thoroughly into soil and water heavily. The higher dosage is recommended for heavy organic or muck soils.
		7 oz per 100 sq ft	BROADCAST For mass planting apply as a broadcast treatment and incorporate into the soil before planting or apply after plants are established. Granules must be incorporated in the soil by mechanical means or thoroughly watered in so no pesticide remains on the soil surface. Repeat applications at 4 to 6 week intervals if necessary.
		2 grams per sq ft	POTTED PLANTS For application to potted plants, determine surface area of container, [diameter (inches) squared x 0.7865 divided by 144 equals square feet area of container]. Apply appropriate amount of DI-SYSTON 15% Granular by thorough incorporation as directed.
Shrubs Trees (Including Christmas trees)	Aphids Birch leaf miner Camellia scale Elm leaf beetle European elm scale Holly leaf miner Lace bug Leafhoppers Mimosa webworm Mites Pine tip moth Soft scale (Coccus hesperidum) Tea scale Thrips Whiteflies	SHRUBS 3.75 to 7.5 grams per foot of height	SHRUBS Apply specified dosage per foot of shrub height. For shrubs 1-3 feet tall apply the lower rate and on plants 3-6 feet in height apply the higher rate. Distribute granules uniformly under the shrub canopy, incorporate thoroughly into the soil, and water heavily. Repeat applications at 4 to 6 week intervals if necessary. See Note below.
		TREES 2.5 oz per inch of trunk diameter measured 4 feet from the ground	TREES Broadcast: Spread granules uniformly from trunk to drip line on all sides. Incorporate thoroughly into soil and water heavily so that no pesticide remains on the soil surface. See Note below. Transplants: For transplanting, equivalent quantities should be applied in the planting hole. Uniformly mix DI-SYSTON 15% Granular in the bottom one-half of the backfilled soil when planting. A minimum of 6 inches of untreated soil should be placed on the backfilled soil. Soil Implant: With an auger or soil sampling tool, dig 2 equally spaced holes for each inch of trunk diameter. (Do not use less than 4 holes per tree.) Dig the holes 9 to 12 inches deep under the drip line. Place an equal amount of DI-SYSTON 15% Granular in each hole. Fill the holes to the surface with soil, compress, and add additional soil to level. Keep the treated area moist for 7 to 10 days.
		Note: Any application equipment which is placed on the applicator's body or is carried by an applicator must meet the following requirements: The pesticide container and the entire path of pesticide through the equipment must be constructed of solid material impervious to dust. All joints must be tight-fitting to prevent escape of granules or dust from any point other than the designed discharge point(s). The pesticide container must be fitted with a tight-fitting lid which prevents escape of granules or dust during operation in any position. The equipment must be maintained in leak free condition. The equipment must be removed from the applicator's body for filling. The equipment exterior must be thoroughly cleaned of pesticide granules and dust before being placed on the applicator's body.	
		5 lb/1000 linear ft of row OR a soil injection 4 to 6 inches beneath the soil surface in 1 or 2 linear application trenches	Soil Injection: Use an opening disk or shoe to make a furrow 4 to 6 inches deep between trunk and drip line of tree parallel to the direction of the row. Apply DI-SYSTON 15% Granular through a tube so that the material is deposited in the bottom of the furrow. A device to close and seal the furrow should be used following the placement of the material so that no granules are present on the soil surface.
* Due to greenbug resistance in certain areas, Di-Syston used alone may not provide satisfactory control. Consult your local cooperative extension service, agricultural advisor or Bayer representative for details. ** On row crops where row spacing is extremely narrow, do not place treated zones (band or furrow) closer together than 6 inches.			